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(FILE 'HOME' ENTERED AT 10:43:58 ON 13 SEP 2006)

FILE 'REGISTRY' ENTERED AT 10:44:09 ON 13 SEP 2006

L1 STRUCTURE UPLOADED

L2 2 S L1

L3 109 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:45:18 ON 13 SEP 2006

L4 4 S L3

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L1 STR

G1 CN, Hy, [@1]

Structure attributes must be viewed using STN Express query preparation.

L3 109 SEA FILE=REGISTRY SSS FUL L1

L4 4 SEA FILE=CAPLUS ABB=ON PLU=ON L3

=> d 1-4 bib abs hitstr

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ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
L4
AN
     2004:493793 CAPLUS
DN
     141:55761
ΤI
     Benzimidazole-pyridone-based azo dyes soluble in organic solvents
     Feiler, Leonhard; Raimann, Thomas; Eichenberger, Thomas; Huegin, Max
IN
PA
     Ciba Specialty Chemicals Holding Inc., Switz.
SO
     PCT Int. Appl., 31 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
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PΙ
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     WO 2004050768
                                20040617
                                                                    20031126
     WO 2004050768
                         A3
                                20040812
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             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
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                                            AU 2003-298325
                                                                    20031126
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                          A2
                                20050907
                                            EP 2003-796059
                                                                    20031126
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
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     US 2006053571
                                            US 2005-537063
                          A1
                                20060316
                                                                    20050601
PRAI CH 2002-2058
                                20021205
                          Α
     WO 2003-EP50898
                                20031126
                          W
OS
    MARPAT 141:55761
GΙ
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$$\begin{bmatrix} R^1 & & & \\ R^2 & & & \\ R^4 - N - N & & \\ & & & \\ \end{bmatrix}$$

$$(SO_3) n^{-1} Mn$$

AB The azo dyes I (R1 = -CN, -COOR5, -CONR6R7, heterocyclic ring; R2 = (un)substituted alkyl, (un)substituted aryl, -CF3, -COOR5, -CONR6R7, -COR5; R3 = H, -SO3M, alkyl, alkoxy, alkylcarbonyl, -NO2, halogen; R4 = substituted aryl, substituted heteroaryl, aryl-N:N-aryl radical, heteroaryl-N:N-heteroaryl radical; R5 = H, alkyl, (un)substituted aryl; R6, R7 = H, alkyl, (un)substituted aryl; M+ = cation; m, n = 1, 2 or 3) are soluble in organic solvents and useful in production of colored plastics or polymeric color particles, and as printing inks, printing dyes, coating compns. and wood stains.

Ι

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ΙT
     704887-66-1 704887-67-2 704887-68-3
     704887-70-7 704887-72-9 704887-74-1
     704887-76-3 704887-78-5 704887-80-9
     704887-82-1 704887-84-3 704887-85-4D,
     bis[C12-14 primary amine (Primene 81)] salts 704887-86-5
     704887-87-6 704887-88-7 704887-89-8
     704887-91-2 704887-92-3 704887-94-5
     704887-96-7 704887-97-8 704887-98-9
     704887-99-0 704888-00-6 704888-01-7
     704888-02-8 704888-03-9 704888-04-0
     704888-05-1 704888-07-3 704888-08-4
     704888-09-5 704888-10-8 704888-12-0
     704888-13-1 704888-14-2 704888-16-4
     704888-18-6 704888-20-0 704888-22-2
     704888-23-3 704888-24-4 704888-26-6
     704888-27-7 704888-29-9 704916-76-7D,
     bis[C12-14 primary amine (Primene 81)] salts 704916-77-8D,
     bis[C12-14 primary amine (Primene 81)] salts 704916-78-9D,
     bis[C12-14 primary amine (Primene 81)] salts 704916-79-0D,
     [C12-14 primary amine (Primene 81)] salts 704916-80-3D,
     bis[C12-14 primary amine (Primene 81)] salts 704916-81-4D,
     bis[C12-14 primary amine (Primene 81)] salts 704916-82-5
     704916-83-6D, bis[C12-14 primary amine (Primene 81)] salts
     704916-84-7D, bis[C12-14 primary amine (Primene 81)] salts
     704916-85-8D, bis[C12-14 primary amine (Primene 81)] salts
     704916-86-9D, tris[C12-14 primary amine (Primene 81)] salts
     RL: TEM (Technical or engineered material use); USES (Uses)
        (benzimidazole-pyridone-based azo dyes soluble in organic solvents)
RN
     704887-66-1 CAPLUS
     1-Butanaminium, N,N,N-tributyl-, salt with 2-[(4-cyano-3-methyl-1-
CN
     oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy-1,4-
     benzenedisulfonic acid (2:1) (9CI) (CA INDEX NAME)
     CM
          1
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CRN 704887-65-0 CMF C20 H13 N5 O8 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-67-2 CAPLUS

CN 1-Hexadecanaminium, N,N,N-trimethyl-, salt with 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy-1,4-benzenedisulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-65-0 CMF C20 H13 N5 O8 S2

CM 2

CRN 6899-10-1 CMF C19 H42 N

 $Me_3+N-(CH_2)_{15}-Me$ 

RN 704887-68-3 CAPLUS

CN 1-Decanaminium, N-decyl-N,N-dimethyl-, salt with 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy-1,4-benzenedisulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-65-0 CMF C20 H13 N5 O8 S2

CM 2

CRN 20256-56-8 CMF C22 H48 N

Me 
$$|$$
Me (CH<sub>2</sub>) 9 N (CH<sub>2</sub>) 9 Me
 $|$ 
Me Me

RN 704887-70-7 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[(4-cyano-1-oxo-3-phenylpyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-69-4 CMF C30 H17 N7 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-72-9 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-1-naphthalenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-71-8 CMF C23 H14 N5 O4 S

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-74-1 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-1,3-benzenedisulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-73-0 CMF C19 H11 N5 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-76-3 CAPLUS

CN 1-Decanaminium, N-decyl-N, N-dimethyl-, salt with 2-[(4-cyano-3-methyl-1-

oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxybenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-75-2 CMF C20 H14 N5 O5 S

CM 2

CRN 20256-56-8 CMF C22 H48 N

RN 704887-78-5 CAPLUS

CN 1-Decanaminium, N-decyl-N,N-dimethyl-, salt with 2-[(4-cyano-1-oxo-3-phenylpyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-nitrobenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-77-4 CMF C24 H13 N6 O6 S

CM 2

CRN 20256-56-8 CMF C22 H48 N

RN 704887-80-9 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[[4-[(4-cyano-1-oxo-3-phenylpyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-2,5-dimethylphenyl]azo]-1,4-benzenedisulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-79-6 CMF C32 H21 N7 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-82-1 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[[4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-6-sulfo-1-naphthalenyl]azo]-1,4-benzenedisulfonic acid (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-81-0 CMF C29 H16 N7 O10 S3

CM 2

CRN 10549-76-5 CMF C16 H36 N

CN

RN 704887-84-3 CAPLUS

1-Butanaminium, N,N,N-tributyl-, salt with 8-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(2-sulfophenyl)azo]-2-naphthalenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-83-2 CMF C29 H17 N7 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-85-4 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

RN 704887-86-5 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, compd. with 1,3,4,6,7,8-hexahydro-2H-pyrimido[1,2-a]pyrimidine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-85-4 CMF C25 H17 N7 O7 S2

CM 2

CRN 5807-14-7 CMF C7 H13 N3

RN 704887-87-6 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, compd. with N,N'-diphenylguanidine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-85-4 CMF C25 H17 N7 O7 S2

CM 2

CRN 102-06-7 CMF C13 H13 N3

RN 704887-88-7 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, compd. with N''-(1,1-dimethylethyl)-N,N,N',N'-tetramethylguanidine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-85-4 CMF C25 H17 N7 O7 S2

CM 2

CRN 29166-72-1 CMF C9 H21 N3

$$\begin{array}{c} \text{NMe}_2 \\ | \\ \text{Me}_2 \text{N--C-----} \text{N--Bu-t} \end{array}$$

RN 704887-89-8 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, compd. with 2-ethyl-N-(2-ethylhexyl)-1-hexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-85-4 CMF C25 H17 N7 O7 S2

CM 2

CRN 106-20-7 CMF C16 H35 N

RN 704887-91-2 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[[4-cyano-3-(4-methoxyphenyl)-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-90-1 CMF C31 H19 N7 O8 S2

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CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-92-3 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, compd. with N,N,N',N'-tetramethylguanidine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-85-4 CMF C25 H17 N7 O7 S2

CM 2

CRN 80-70-6 CMF C5 H13 N3

$$\begin{array}{c} \text{NH} \\ || \\ \text{Me}_2 \text{N-C-NMe}_2 \end{array}$$

RN 704887-94-5 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[[4-cyano-1-oxo-3-(trifluoromethyl)pyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-93-4 CMF C25 H12 F3 N7 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-96-7 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(phenylsulfonyl)oxy]-2,7-naphthalenedisulfonic acid (2:1) (9CI) (CA

10/537,063

Page 15

INDEX NAME)

CM 1

CRN 704887-95-6

CMF C29 H17 N5 O10 S3

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-97-8 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-4-methoxy-5-[(4-sulfophenyl)azo]-, disodium salt (9CI) (CA INDEX NAME)

●2 Na

RN 704887-98-9 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-4-methoxy-5-[(4-sulfophenyl)azo]-, potassium sodium salt (9CI) (CA INDEX NAME)

●x K

●x Na

RN 704887-99-0 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy-, disodium salt (9CI) (CA INDEX NAME)

•2 Na

RN 704888-00-6 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-1-oxo-3-phenylpyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, disodium salt (9CI) (CA INDEX NAME)

•2 Na

RN 704888-01-7 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-1-oxo-3-phenylpyrido[1,2-a]benzimidazol-

2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, potassium sodium salt (9CI) (CA INDEX NAME)

●x K

•x Na

RN 704888-02-8 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 3-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-, disodium salt (9CI) (CA INDEX NAME)

●2 Na

RN 704888-03-9 CAPLUS

CN 1-Naphthalenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-, monosodium salt (9CI) (CA INDEX NAME)

Na

RN 704888-04-0 CAPLUS

CN Benzenesulfonic acid, 3-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-4-methoxy-, monosodium salt (9CI) (CA INDEX NAME)

Na

RN 704888-05-1 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy-, monosodium salt (9CI) (CA INDEX NAME)

Na

RN 704888-07-3 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-1-oxo-3-phenylpyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-nitro-, potassium sodium salt (9CI) (CA INDEX NAME)

●x K

•x Na

RN 704888-08-4 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-2,5-dimethylphenyl]azo]-, disodium salt (9CI) (CA INDEX NAME)

•2 Na

RN 704888-09-5 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-6-sulfo-1-naphthalenyl]azo]-, trisodium salt (9CI) (CA INDEX NAME)

RN 704888-10-8 CAPLUS

CN 2-Naphthalenesulfonic acid, 8-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(2-sulfophenyl)azo]-, potassium sodium salt (9CI) (CA INDEX NAME)

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PAGE 2-A

●x Na

RN 704888-12-0 CAPLUS

CN Benzenesulfonic acid, 5-[(3-cyano-4-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-2-[2-[4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-2-sulfophenyl]ethenyl]-, potassium sodium salt (9CI) (CA INDEX NAME)

●x K

●x Na

PAGE 1-B

Me N

RN 704888-13-1 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(phenylsulfonyl)oxy]-, potassium sodium salt (9CI) (CA INDEX NAME)

●x K

RN 704888-14-2 CAPLUS

CN Benzenesulfonic acid, 5-[[3-(aminocarbonyl)-4-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-2-[2-[4-[[4-(aminocarbonyl)-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-2-sulfophenyl]ethenyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

•2 Na

PAGE 1-B

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[[4-(aminocarbonyl)-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704888-15-3 CMF C25 H17 N7 O8 S2

$$\begin{array}{c|c}
 & O \\
 & C - NH_2 \\
 & N - NH \\
 & O - O_3S
\end{array}$$
SO<sub>3</sub>-

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704888-18-6 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 4-cyano-1,2-dihydro-3-methyl-2- [(4-nitro-2-sulfophenyl)hydrazono]-1-oxopyrido[1,2-a]benzimidazole-7-sulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704888-17-5 CMF C19 H10 N6 O9 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704888-20-0 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 4-cyano-1,2-dihydro-3-methyl-1-oxo-2-[[2-sulfo-4-[(4-sulfophenyl)azo]phenyl]hydrazono]pyrido[1,2-a]benzimidazole-7-sulfonic acid (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704888-19-7 CMF C25 H14 N7 O10 S3

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704888-22-2 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 4-cyano-1,2-dihydro-3-methyl-2-[[4-nitro-2-(trifluoromethyl)phenyl]hydrazono]-1-oxopyrido[1,2-a]benzimidazole-7-sulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704888-21-1 CMF C20 H10 F3 N6 O6 S

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704888-23-3 CAPLUS

CN Pyrido[1,2-a]benzimidazole-7-sulfonic acid, 4-cyano-1,2-dihydro-3-methyl-2-[[4-nitro-2-(trifluoromethyl)phenyl]hydrazono]-1-oxo-, monopotassium salt (9CI) (CA INDEX NAME)

K

RN 704888-24-4 CAPLUS

CN Benzenesulfonic acid, 2-[(7,8-dichloro-4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, disodium salt (9CI) (CA INDEX NAME)

●2 Na

RN 704888-26-6 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[(7,8-dichloro-4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704888-25-5 CMF C25 H13 Cl2 N7 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704888-27-7 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 3-[[4-(aminocarbonyl)-7,8-dichloro-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-, disodium salt (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ C - NH_2 \\ Me \\ N - NH \\ \end{array}$$

## ●2 Na

RN 704888-29-9 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 3-[[4-(aminocarbonyl)-7,8-dichloro-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-1,5-naphthalenedisulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704888-28-8 CMF C23 H13 Cl2 N5 O8 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704916-76-7 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy- (9CI) (CA INDEX NAME)

RN 704916-77-8 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[4-cyano-3-(1-methylethyl)-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-5-methoxy- (9CI) (CA INDEX NAME)

RN 704916-78-9 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 3-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]- (9CI) (CA INDEX NAME)

RN 704916-79-0 CAPLUS

CN Benzenesulfonic acid, 3-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-4-methoxy- (9CI) (CA INDEX NAME)

RN 704916-80-3 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]- (9CI) (CA INDEX NAME)

RN 704916-81-4 CAPLUS

CN Benzenesulfonic acid, 5-[(3-cyano-4-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-2-[2-[4-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-2-sulfophenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 704916-82-5 CAPLUS

CN Sodium(1+), (1,4,7,10,13,16-hexaoxacyclooctadecane- $\kappa 01, \kappa 04, \kappa 07, \kappa 010, \kappa 013, \kappa 016$ )-, (0C-6-11)-, salt with 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-60-5 CMF C25 H15 N7 O7 S2

CM 2

CRN 31270-12-9 CMF C12 H24 Na O6 CCI CCS

RN 704916-83-6 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[4-(aminocarbonyl)-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]-5-methoxy- (9CI) (CA INDEX NAME)

RN 704916-84-7 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 3-[[4-(aminocarbonyl)-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene]hydrazino]- (9CI) (CA INDEX NAME)

RN 704916-85-8 CAPLUS

CN Pyrido[1,2-a]benzimidazole-7-sulfonic acid, 4-cyano-1,2-dihydro-2-[(2-methoxy-5-sulfophenyl)hydrazono]-3-methyl-1-oxo- (9CI) (CA INDEX NAME)

RN 704916-86-9 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[(4-cyano-3-methyl-1-oxo-7-sulfopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-methoxy- (9CI) (CA INDEX NAME)

IT 704887-58-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzimidazole-pyridone-based azo dyes soluble in organic solvents)

RN 704887-58-1 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, disodium salt (9CI) (CA INDEX NAME)

## ●2 Na

IT 704887-59-2P

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of benzimidazole-pyridone-based azo dyes soluble in organic solvents)

RN 704887-59-2 CAPLUS

CN Benzenesulfonic acid, 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]-, potassium sodium salt (9CI) (CA INDEX NAME)

●x K

●x Na

IT 704887-61-6P 704887-64-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

 $(\mbox{preparation of benzimidazole-pyridone-based azo dyes soluble in organic solvents)} \\$ 

RN 704887-61-6 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 2-[(4-cyano-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2(1H)-ylidene)hydrazino]-5-[(4-sulfophenyl)azo]benzenesulfonic acid (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-60-5 CMF C25 H15 N7 O7 S2

CM 2

CRN 10549-76-5 CMF C16 H36 N

RN 704887-64-9 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, salt with 4-cyano-2-[(2,4-dinitrophenyl)hydrazono]-1,2-dihydro-3-methyl-1-oxopyrido[1,2-

a]benzimidazole-7-sulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 704887-63-8 CMF C19 H10 N7 O8 S

CM 2

CRN 10549-76-5 CMF C16 H36 N

```
ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
L4
     2003:634002 CAPLUS
ΑN
DN
     139:181533
ΤI
     Colored aluminum oxide layers and their production
     Schacht, Hans-thomas; Moegle, Gilbert; Bauer, Didier; Feiler, Leonhard;
IN
     Wallquist, Olof; Mueller, Martin
PA
     Ciba Specialty Chemicals Holding Inc., Switz.
SO
     PCT Int. Appl., 41 pp.
     CODEN: PIXXD2
     Patent
DT
LΑ
     English
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
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                                -----
                                            -----
                                                                   -----
ΡI
     WO 2003066938
                          A2
                                20030814
                                            WO 2003-EP817
                                                                   20030128
     WO 2003066938
                         A3
                                20040729
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003205687
                          A1
                                20030902
                                          AU 2003-205687
                                                                   20030128
     EP 1501965
                          A2
                                20050202
                                           EP 2003-702541
                                                                   20030128
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2005517090
                          T2
                                20050609
                                           JP 2003-566277
                                                                   20030128
     US 2005155162
                                            US 2003-503152
                          A1
                                20050721
                                                                   20030128
PRAI EP 2002-405083
                                20020206
                          Α
     EP 2002-405237
                          Α
                                20020326
     WO 2003-EP817
                          W
                                20030128
OS
     MARPAT 139:181533
AΒ
     The present invention relates to a process for producing colored oxide
     layers on aluminum or on aluminum alloys by dyeing in an aqueous dye bath,
     rinsing with water, and sealing. Employed is at least one dye
     [X103S]mA[SO2N(X2)]nB (m, n = 1-4; m + n = \leq 8; A = chromophore; B =
     H, organic. group; X1, X2 = H, cation). The dyeings obtainable according to
     the process of the invention have surprisingly high light-fastness
     properties. In an example, disodium 4,4'-diamino-1,1'-bisanthraquinone-
     3,3'-disulfonate was heated with ethanolamine to provide a dark red
     ethanolammonium dye. The dye was used on anodically oxidized pure Al
     sheet.
ΙT
     578727-18-1D, Primene 81R salts 578727-19-2
     578727-20-5
     RL: TEM (Technical or engineered material use); USES (Uses)
        (dye; dyes for colored anodized aluminum oxide layers)
RN
     578727-18-1 CAPLUS
     1,3-Benzenedisulfonic acid, 4-[(4-cyano-1,2-dihydro-3-methyl-1-
CN
     oxopyrido[1,2-a]benzimidazol-2-yl)azo]- (9CI) (CA INDEX NAME)
```

RN 578727-19-2 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[(4-cyano-1,2-dihydro-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2-yl)azo]-, compd. with 2-aminoethanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 578727-18-1 CMF C19 H13 N5 O7 S2

CM 2

CRN 141-43-5 CMF C2 H7 N O

 $H_2N-CH_2-CH_2-OH$ 

RN 578727-20-5 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[(4-cyano-1,2-dihydro-3-methyl-1-oxopyrido[1,2-a]benzimidazol-2-yl)azo]-, diammonium salt (9CI) (CA INDEX NAME)

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1986:574390 CAPLUS

DN 105:174390

TI Synthesis of oxazolo[4',5':5,6]pyrido[1,2-a]benzimidazole derivatives and study of their fluorescent properties

AU Rangnekar, D. W.; Rajadhyaksha, D. D.

CS Dep. Chem. Technol., Univ. Bombay, Bombay, 400 019, India

SO Dyes and Pigments (1986), 7(5), 365-72 CODEN: DYPIDX; ISSN: 0143-7208

DT Journal

LA English

GI

AB 2-Amino-3-methyl-1-hydroxypyrido[1,2-a]benzimidazole-4-carbonitrile (I) [104751-37-3], the key compound in the synthesis of oxazolo[4',5':5,6]pyrido[1,2-a]benzimidazole derivs., was prepared by reduction of the azo dye [104751-30-6] obtained from phenyldiazonium-4sulfonic acid salt [305-80-6], coupled with 3-methyl-1-hydroxypyrido[1,2a]benzimidazole-4-carbonitrile [34940-35-7]. The condensation of I with Ac20 yielded 2,4-dimethyloxazolo[4',5':5,6]pyrido[1,2-a]benzimidazole-5carbonitrile (II) [104751-38-4] and condensation of I with EtOBz [93-89-0] and Et 4-methoxybenzoate [94-30-4] in polyphosphoric acid afforded the corresponding 2-phenyl- [104751-28-2] and 2-(p-methoxyphenyl)-4-methyloxazolo[4',5':5,6]pyrido[1,2-a]benzimidazole-5carbonitrile [104751-29-3]. Similar condensations were conducted using fumaric acid [110-17-8] and di-Et terephthalate [636-09-9]. Some of the compds. were evaluated as fluorescent brighteners for polyester fibers. IT 104751-30-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reduction of)

RN 104751-30-6 CAPLUS

CN Benzenesulfonic acid, 4-[(4-cyano-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)azo]- (9CI) (CA INDEX NAME)

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1971:530767 CAPLUS

DN 75:130767

TI Water-soluble azo dyes for nylon 6

IN Lamm, Gunther; Dehnert, Johannes

PA Badische Anilin- & Soda-Fabrik AG

SO Ger. Offen., 34 pp. CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	DE 2004488	Α	19710805	DE 1970-2004488	19700131	

PRAI DE 1970-2004488 19700131

GI For diagram(s), see printed CA Issue.

Water-soluble dyes of general formula I (R = aromatic or heterocyclic group; R1 = Me, Ph; X = CN, CONH2), dyeing nylon 5 red shades, were prepared by coupling di- or tetrazotized R(NH2)1-2 with 1-hydroxypyrido[1,2- $\alpha$ ] benzimidazoles. Thus, diazotized 2-nitro-4-chloroaniline was coupled with II to give Na 2-(4-chloro-2-nitrophenylazo)-1-hydroxy-3-methyl-4-carbamoylpyrido[1,2- $\alpha$ ] benzimidazolesulfonate. Similarly prepared were 4 other I.

IT 32826-22-5P 34109-20-1P 34109-21-2P 34150-50-0P 34150-51-1P 34205-79-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

RN 32826-22-5 CAPLUS

CN Pyrido[1,2-a]benzimidazolesulfonic acid, 4-carbamoyl-2-[(4-chloro-2-nitrophenyl)azo]-1-hydroxy-3-methyl-, monosodium salt (8CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C - NH_2 \\
N - N - N - N
\end{array}$$

$$\begin{array}{c|c}
N - N - N - N
\end{array}$$

$$\begin{array}{c|c}
C1 \\
NO_2
\end{array}$$

D1-S03H

Na

RN 34109-20-1 CAPLUS

CN Benzenesulfonic acid, p-[(4-carbamoyl-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)azo]-, monosodium salt (8CI) (CA INDEX NAME)

Na

RN 34109-21-2 CAPLUS

CN Benzenesulfonic acid, p-[[p-[(4-carbamoyl-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)azo]phenyl]azo]-, monosodium salt (8CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C & NH_2 \\
N & N & N \\
N & N & N
\end{array}$$
SO<sub>3</sub>H

Na

RN 34150-50-0 CAPLUS

CN Pyrido[1,2-a]benzimidazolesulfonic acid, 2-(2-benzothiazolylazo)-4-carbamoyl-1-hydroxy-3-methyl-, monosodium salt (8CI) (CA INDEX NAME)

D1-SO3H

Na

RN 34150-51-1 CAPLUS

CN Pyrido[1,2-a]benzimidazolesulfonic acid, 4-carbamoyl-2-[[2,5-dichloro-4-[(phenylsulfonyl)sulfamoyl]phenyl]azo]-1-hydroxy-3-methyl-, monosodium salt (8CI) (CA INDEX NAME)

 $D1-SO_3H$ 

Na

RN 34205-79-3 CAPLUS

CN 2,2'-Biphenyldisulfonic acid, 4,4'-bis[(4-cyano-1-hydroxy-3-phenylpyrido[1,2-a]benzimidazol-2-yl)azo]-, disodium salt (8CI) (CA INDEX NAME)

2 Na

=> => d que	e 110	stat			
L5	16	SEA FILE=CA	PLUS ABB=ON	PLU=ON	"FEILER LEONHARD"/AU
L6	1	SEA FILE=CA	PLUS ABB=ON	PLU=ON	"RAIMANN THOMAS"/AU
L7	16	SEA FILE=CA	PLUS ABB=ON	PLU=ON	"EICHENBERGER THOMAS"/AU
L8	2	SEA FILE=CA	PLUS ABB=ON	PLU=ON	"HUGIN MAX"/AU
L9	31	SEA FILE=CA	PLUS ABB=ON	PLU=ON	L5 OR L6 OR L7 OR L8
L10	4	SEA FILE=CA	PLUS ABB=ON	PLU=ON	L9 AND AZO

=> d 1-4 bib abs

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L10
    ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
ΑN
     2004:493793 CAPLUS
     141:55761
DN
ΤI
     Benzimidazole-pyridone-based azo dyes soluble in organic
     solvents
IN
     Feiler, Leonhard; Raimann, Thomas; Eichenberger,
     Thomas; Huegin, Max
PΑ
     Ciba Specialty Chemicals Holding Inc., Switz.
SO
     PCT Int. Appl., 31 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                            APPLICATION NO.
     PATENT NO.
                        KIND
                                DATE
                                                                   DATE
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                                -----
                                            -----
                                                                   _____
PΙ
    WO 2004050768
                         A2
                                20040617
                                            WO 2003-EP50898
                                                                   20031126
    WO 2004050768
                         Α3
                                20040812
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                20040617
     CA 2505613
                         AA
                                          CA 2003-2505613
                                                                   20031126
    AU 2003298325
                         A1
                                20040623
                                            AU 2003-298325
                                                                   20031126
    EP 1570004
                                20050907
                                            EP 2003-796059
                         A2
                                                                   20031126
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
    BR 2003016989
                         Α
                                20051025
                                           BR 2003-16989
     CN 1720298
                         Α
                                20060111
                                            CN 2003-80105071
                                                                   20031126
     JP 2006509068
                         T2
                                20060316
                                            JP 2004-556335
                                                                   20031126
    US 2006053571
                         Α1
                                20060316
                                            US 2005-537063
                                                                   20050601
PRAI CH 2002-2058
                         Α
                                20021205
    WO 2003-EP50898
                                20031126
os
    MARPAT 141:55761
GΙ
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$$\begin{bmatrix} R^1 & & & \\ R^2 & & & \\ R^4 - N - N & & \\ \end{bmatrix}$$
(S03) n  $^-$  Mn

AB The azo dyes I (R1 = -CN, -COOR5, -CONR6R7, heterocyclic ring; R2 = (un)substituted alkyl, (un)substituted aryl, -CF3, -COOR5, -CONR6R7, -COR5; R3 = H, -SO3M, alkyl, alkoxy, alkylcarbonyl, -NO2, halogen; R4 = substituted aryl, substituted heteroaryl, aryl-N:N-aryl radical, heteroaryl-N:N-heteroaryl radical; R5 = H, alkyl, (un)substituted aryl; R6, R7 = H, alkyl, (un)substituted aryl; M+ = cation; m, n = 1, 2 or 3) are soluble in organic solvents and useful in production of colored plastics or polymeric color particles, and as printing inks, printing dyes, coating compns. and wood stains.

Ι

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ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
L10
AN
     2003:634002 CAPLUS
DN
     139:181533
ΤI
     Colored aluminum oxide layers and their production
IN
     Schacht, Hans-thomas; Moegle, Gilbert; Bauer, Didier; Feiler,
     Leonhard; Wallquist, Olof; Mueller, Martin
PA
     Ciba Specialty Chemicals Holding Inc., Switz.
SO
     PCT Int. Appl., 41 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
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PΤ
     WO 2003066938
                         A2
                                20030814
                                            WO 2003-EP817
                                                                   20030128
     WO 2003066938
                         А3
                                20040729
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003205687
                         A1
                                20030902
                                          AU 2003-205687
     EP 1501965
                         A2
                                20050202
                                          EP 2003-702541
                                                                   20030128
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                         T2
                                20050609
                                           JP 2003-566277
     JP 2005517090
                                                                   20030128
     US 2005155162
                                           US 2003-503152
                                20050721
                                                                   20030128
                         A1
PRAI EP 2002-405083
                                20020206
                         Α
     EP 2002-405237
                         А
                                20020326
     WO 2003-EP817
                         W
                                20030128
OS
     MARPAT 139:181533
     The present invention relates to a process for producing colored oxide
     layers on aluminum or on aluminum alloys by dyeing in an aqueous dye bath,
     rinsing with water, and sealing. Employed is at least one dye
```

AB The present invention relates to a process for producing colored oxide layers on aluminum or on aluminum alloys by dyeing in an aqueous dye bath, rinsing with water, and sealing. Employed is at least one dye [X103S]mA[SO2N(X2)]nB (m, n = 1-4; m + n = ≤8; A = chromophore; B = H, organic. group; X1, X2 = H, cation). The dyeings obtainable according to the process of the invention have surprisingly high light-fastness properties. In an example, disodium 4,4'-diamino-1,1'-bisanthraquinone-3,3'-disulfonate was heated with ethanolamine to provide a dark red ethanolammonium dye. The dye was used on anodically oxidized pure Al sheet.

- L10 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1993:474599 CAPLUS
- DN 119:74599
- TI Dyes, their preparation and use, and sulfooxobutyramide intermediates
- IN Adam, Jean Marie; Eichenberger, Thomas
- PA Ciba-Geigy A.-G., Switz.
- SO Eur. Pat. Appl., 18 pp. CODEN: EPXXDW
- DT Patent
- LA German
- FAN.CNT 1

	PA	CENT	NO.			KINI	D	DATE			API	PLICATION NO.	DATE	
				<b>-</b>			-		<b>-</b> -				 	
PI	ΕP	5277	04			A2		1993	0217		ΕP	1992-810585	19920731	
	ΕP	5277	04			A3		1993	0825					
	ΕP	5277	04			B1		1996	0828					
		R:	BE,	CH,	DE,	ES,	FR	, GB,	IT,	LI				
	ES	2092	080			Т3		1996	1116		ES	1992-810585	19920731	
	US	5302	704			Α		1994	0412		US	1992-924140	19920803	j
	JΡ	0520	2306			A2		1993	0810		JP	1992-227855	19920805	;
PRAI	CH	1991	-2344	1		Α		1991	8080					
					-									

OS MARPAT 119:74599

The dyes, R1R2NCOC(:NNHR3)COCH2SO3H (R1 = H, C1-4-alky1; R2 = optionally substituted Ph; R3 = diazo component residue), are obtained for use on polyamide fibers, paper, and leather. Thus, diketene was chlorinated and condensed with p-anisidine, and the product was heated with Na2SO3 to give p-MeOC6H4NHCOCH2COCH2SO3H (I). I was coupled with diazotized 4-aminoazobenzene to give a product which dyed nylon 66 and wool fibers yellow.

- L10 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1993:61519 CAPLUS
- DN 118:61519
- TI Azo dyes, their preparation and use
- IN Adam, Jean Marie; Eichenberger, Thomas
- PA Ciba-Geigy A.-G., Switz.
- SO Ger. Offen., 10 pp. CODEN: GWXXBX
- DT Patent
- LA German
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 4208535	A1	19920924	DE 1992-4208535	19920317	
	CH 681806	A	19930528	CH 1991-843	19910319	
PRAI	CH 1991-843	A	19910319			

- OS MARPAT 118:61519
- GI For diagram(s), see printed CA Issue.
- AB The title dyes (I; R1 = H, organic group; R2, R3 = H, optionally substituted C1-6-alkyl or phenyl; E = N, C; X = O, S, imino; Z = N, CH; Y1, Y2 = O, NH, iminoalkyl; M = H, alkali metal, ammonium; ring A carbocyclic or N-containing ring; ring B is optionally substituted) are obtained for use with paper and other substrates. Thus, 2-(4-aminophenyl)-6-methyl-7-benzothiazolesulfonic acid was diazotized and coupled with 3-amino-5-imino-2H-1,2,6-thiadiazine 1,1-dioxide to give yellow orange dye for paper.

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(FILE 'HOME' ENTERED AT 10:43:58 ON 13 SEP 2006)

FILE 'REGISTRY' ENTERED AT 10:44:09 ON 13 SEP 2006
L1 STRUCTURE UPLOADED
D
L2 2 SEA SSS SAM L1
D SCAN
L3 109 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 10:45:18 ON 13 SEP 2006 4 SEA ABB=ON PLU=ON L3 1.4 D QUE L4 STAT D 1-4 BIB ABS HITSTR E FEILER LEONHARD/AU 16 SEA ABB=ON PLU=ON "FEILER LEONHARD"/AU L5 E RAIMANN THOMAS/AU L6 1 SEA ABB=ON PLU=ON "RAIMANN THOMAS"/AU E EICHENBERGER THOMAS/AU L7 16 SEA ABB=ON PLU=ON "EICHENBERGER THOMAS"/AU E HUGIN MAX/AU 2 SEA ABB=ON PLU=ON "HUGIN MAX"/AU L8 L9 31 SEA ABB=ON PLU=ON L5 OR L6 OR L7 OR L8 L10 4 SEA ABB=ON PLU=ON L9 AND AZO D QUE L10 STAT D 1-4 BIB ABS

## FILE HOME

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